

ABSTRACT

A flexible conductor core for superconducting power cable, characterized by a central tubular element on which the superconducting tapes are placed, in the shape of a spiral or helix, in at least two layers with a calculated angle of lay length, being one of the sections of the layers of the superconducting tapes laid in a direction opposite to the other section, wherein the laying length of all the layers varies from a maximum $P_{\max 1}$ (1000 cm) and $P_{\max 2}$ (1000 cm) in the intermediate layers to a $P_{\min 1}$ (2 cm) and $P_{\min 2}$ (2 cm) in the external layers, while the laying angle of the tapes of all the layers varies from $\alpha_{\max 1}$ (45°) to $\alpha_{\min 1}$ (0°).